## Engaging Communities to Fight a Climate Crisis

The most sophisticated flood maps don't show everything, including the communities most ravaged by climate hazards because of systemic vulnerabilities. Planet Texas 2050 researchers are working to change that, getting a better picture of the problem by working directly with residents in the Dove Springs neighborhood in Southeast Austin, an area ravaged by flooding.

The goal is to gather residents' lived experiences — places that flood when it rains or areas that get extremely hot in heat waves — with the goal of building a giant data portal that will help the City of Austin come up with climate solutions. School of Architecture Assistant Professor Katherine Lieberknecht was recently awarded a National Science Foundation grant to assist in the effort.

Read more about this project and the community it will help.

## Planet Texas Welcomes New Leadership, Unveils Flagship Projects

The Planet Texas 2050 team has been working over the past year to refine a set of flagship projects that will help us better address the demographic and climate changes that are already affecting Texas. Outgoing Chair Heather Houser unveils the six flagship projects, which range from designing new, integrated models for complex climate-related decision-making to looking to the ancient past to imagine a more resilient future for Texas.

Houser passes her leadership post to Fernanda Leite, associate professor in the Department of Civil, Architectural and Environmental Engineering, who will oversee flagship implementation.

Read more about the flagship projects and our successes over the past year.

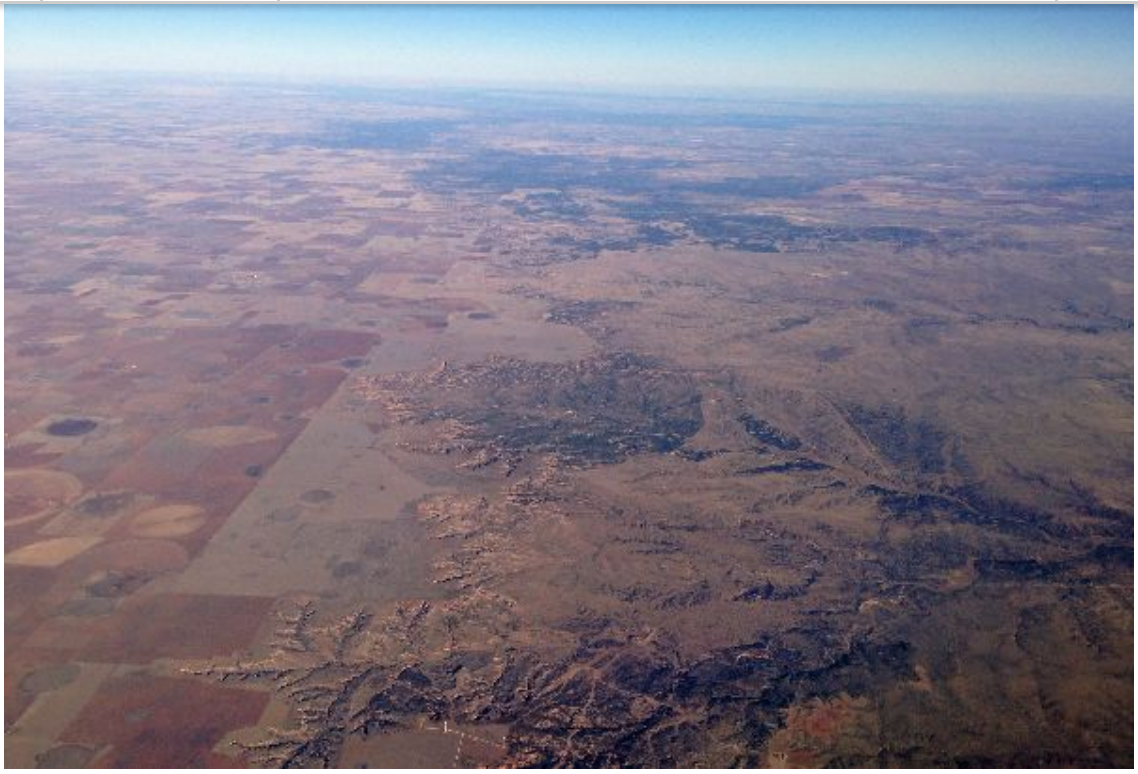
## SPOTLIGHT: Hazard Preparedness and Response

In each of our forthcoming newsletters, we will spotlight one of Planet Texas 2050's six new flagship projects. This month, learn about work the Department of Civil, Environmental and Architectural Engineering and the LBJ School of Public Affairs are doing to improve disaster preparation and response in Texas.

In our region, the most deadly and costly natural disaster is flooding. Preparation and response are limited because flood and risk maps commonly available to local decision-makers and residents aren't as accurate and informative as they could be. This project will layer newer, more refined flood maps with the social vulnerability scores of communities to better respond to the people most affected by catastrophic disasters.

Learn more about the "Networks for Hazard Preparedness and Response" flagship project.

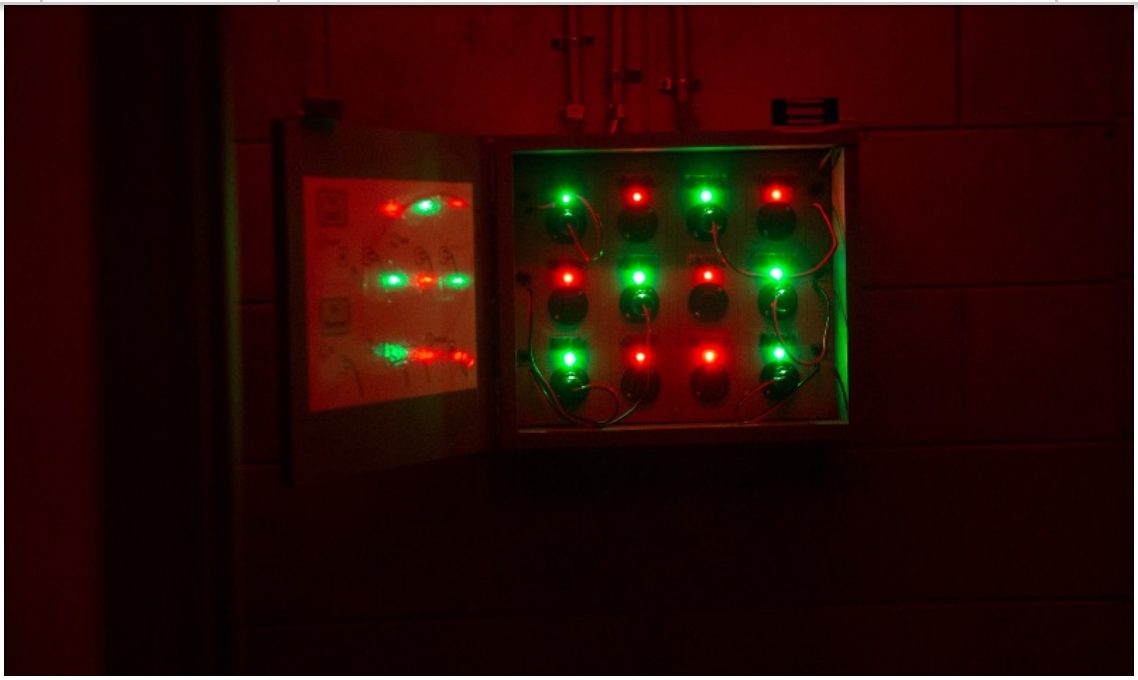
Planet Texas 2050 researchers are part of a team working to track COVID-19 hotspots on campus and throughout the city of Austin by looking at a surprising place: wastewater. Learn more about this important tracking tool amid the pandemic.



*"When I arranged the interview over the phone, he asked ironically if I had a 'cryin' towel.'"*

Paul Adams, a professor the Department of Geography and the Environment, has spent many hours talking to farmers in the Panhandle and West Texas about things like the weather, climate, and the water they use on their crops. What words do they use? What words do they intentionally not use? It's part of a research project called Texas Water Stories, and it's a critical part of Planet Texas 2050. If we don't understand how people communicate about the ground they live on, we'll have little success finding common ground to move us toward a more resilient future.

Learn more about Adams' work at our Fall Research Showcase Series December 9th. Details are included below. And check out Adams' field notes, too.



## Escaping Doom

What would you do if you were stuck on a platform in the middle of the Gulf of Mexico during a devastatingly powerful hurricane that's intensifying quickly? UT Fine Arts students in collaboration with Planet Texas 2050 set out to create an escape room simulation that would show participants exactly that. The pandemic may have disrupted plans to showcase the project at SXSW, but the students still got to flex their design skills.

See how the months-long design process came together.

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## Join us for upcoming Planet Texas 2050 events

**Planet Texas Fall Research Showcase Series**

Dec. 1, 12 – 1 p.m.
Learn more about the connections among climate, human societies, and biodiversity in Central Texas over the past 20,000 years and see an analysis of watershed management and demographic dynamics in the Maya region, the landscape around Rome, and the Greek and Roman cities of the lower Danube

Dec. 2, 12 – 1 p.m.
Hear about Planet Texas 2050's work to understand the decades-long effects of urbanization on our local watersheds — a tool that will help to forecast how these watersheds will develop into the 21st Century. Other projects featured look at water availability and using environmental sensors to stream data to the Texas Advanced Computing Center in real-time.
Register here

Dec. 8, 12 – 1 p.m.
Learn more about how air pollution from transit in Austin affects public health, as well as what the cities of Houston and San Antonio have been doing to address social inequality in their climate-planning efforts. Researchers also will present on an analysis of environmental nonprofits across the state.
Register here

Dec. 9, 12 – 1 p.m.
Over the past two years, Texas Water Stories has assessed wide-ranging narratives about one of the most valuable resources in Texas: water. Hear historical narratives about the Rio Grande along the US-Mexico border, discover Coahuiltecan ceremonies honoring the natural springs of Central Texas and learn about farmers struggling with the declining Ogallala aquifer and their subsequent shift to dry-land farming on the Southern High Plains.
Register here

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## Please join us.

*Planet Texas 2050 is a research grand challenge at The University of Texas at Austin. We're a team of more than 150 researchers across all disciplines working together over the next decade to find ways to make our state more resilient in the face of extreme weather events and rapid population growth. Follow us on Twitter, visit our website, and view our blog for updates.*